



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/647,762 | 08/25/2003 | Cherng-Chyi Han | HT02-029 | 2793 |
| 7590 09/02/2005 | | | EXAMINER | |
| STEPHEN B. ACKERMAN 28 DAVIS AVENUE POUGHKEEPSIE, NY 12603 | | | KIM, PAUL D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3729 | |

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary

Application No.

10/647,762

Applicant(s)

HAN ET AL.

Examiner

Paul D. Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 9-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/24/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is a response to the restriction requirement filed on 7/20/2005.

Response to the Restriction Requirement

1. Applicant's election with traverse of Group I, claims 1-8, in the reply filed on 7/20/2005 is acknowledged. The traversal is on the ground that the fields of search for the Group I and II inventions are clearly and necessarily co-extensive. This is not found persuasive because Group II is a process for manufacturing a stitched pole magnetic write head, which is in the subclass of 603.07 and Group I is a planarizing process, which is not related for manufacturing a magnetic head and this planarizing process can be performed in a process of making any electrical device such as printed circuit board such as subclass of 831. Therefore, these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore **made FINAL**.

2. Claims 9-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/20/2005.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --A PLANARIZING PROCESS--.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Re. Claim 2: The phrase "said cavity has a depth between about 2 and 3 microns" as recited in lines 1-2 does not disclose in the specification.

Re. Claim 3: The phrase "said cavity has a width between about 20 and 60 microns and a length between about 6 and 10 microns" as recited in lines 1-2 does not disclose in the specification.

Re. Claim 8: The phrase "said layer of alumina is deposited by means of sputtering" as recited in lines 1-2 does not disclose in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 3729

6. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Han et al. (US 2005/0024769 A1).

The applied reference has a common assignee and inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

7. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Hsu et al. (US PAT. 6,693,769).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al.

Hsu et al. teach all of the limitations as set forth above except characteristics of the cavity, forming a layer of photoresist and a thickness of an alumina layer. At the time the invention was made, it would have been an obvious matter of design choice to a

Art Unit: 3729

person of ordinary skill in the art to modify the cavity, a layer of photoresist and a thickness of an alumina layer as recited in the claimed invention because Applicant has not disclosed that the recitations as recited in the claimed invention provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Hsu et al. because the recitation as recited in the claimed invention would perform equally well with the write head in Hsu et al. Therefore, it would have been an obvious matter of design choice to modify the write head of Hsu et al. to obtain the invention as specified in claims 2, 3, 6, and 7.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. in view of Hsiao et al. (US PAT. 6,687,083).


Hsu et al. teach all of the limitations as set forth above except spin coating the photoresist layer. Hsiao et al. teach a process of making a magnetic write head including a process of spin coating an insulating layer as a photoresist layer (420) over a coil layer (416) as shown in Fig. 4 in order to apply the photoresist layer with a desire thickness on the coil layer. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a process of fabricating a photoresist layer of Hsu et al. by spin coating process as taught by Hsiao et al. in order to apply the photoresist layer with a desire thickness on the coil layer.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565. The examiner can normally be reached on Monday-Friday between 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul D Kim
Examiner
Art Unit 3729